

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE INSTALLATION OF A TEMPORARY TRAFFIC CONTROL SIGNAL AT THE NORTH AND SOUTH ENDS OF BRIDGE NO. 10085 ON MD 355 IN FREDERICK COUNTY. MD 355 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH NORTHBOUND AND SOUTHBOUND MD 355 OPERATING AS SEPERATE PHASES. AN ALL RED CLEARANCE PHASE WILL BE PROVIDED.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER, INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSSES HOUSED IN A NEMA SIZE "5" POLE MOUNTED CABINET ON SOUTH SIDE OF BRIDGE. INSTALL "G" SIZE POLE MOUNTED CABINET WITH TWO-CIRCUIT FLASHER UNIT ON NORTH SIDE OF BRIDGE.

PHONE DROP

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.00 - 104.00-30

STANDARD NO. MD-104.31-01 (FLAGGING OPERATION)

STANDARD NO. MD-104.33-01 (SHOULDER WORK)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. JOHN CONCANNON  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (301) 624-8140/8141

MR. DAVE COYNE  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (301) 624-8105/8106

MR. ED RODENHIZER, SUPERVISOR  
SIGNAL OPERATIONS SECTION  
PHONE: (410) 787-7650

MR. SONNY BAILEY, SUPERVISOR  
SIGN OPERATIONS SECTION  
PHONE: (410) 787-7670

MR. JAMES BUCKALEW  
DISTRICT UTILITY ENGINEER  
PHONE: (301) 624-8115/8116

MR. RICHARD L. DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

MS. DARLENE EIDE  
SIGNAL WAREHOUSE  
PHONE: (410) 787-7668

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
963010	1 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
971016	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION MONITOR HOUSED IN A NEMA SIZE "5" POLE MOUNTED CABINET
973023	74 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : - 1 EACH W3-3 SIGN (48 IN. x 48 IN.) - MAST ARM MOUNT - 2 EACH R10-6 SIGN (36 IN. x 24 IN.) - GROUND MOUNT - 1 EACH W3-3 SIGN (48 IN. x 48 IN.) WITH "TEMP" PANEL (30 IN. x 30 IN.)- POLE MOUNT - 1 EACH W3-3 SIGN (48 IN. x 48 IN.) WITH "TEMP" PANEL (30 IN. x 30 IN.)- GROUND MOUNT
971040	1 EACH	"G" SIZE POLE MOUNTED CABINET WITH TWO-CIRCUIT FLASHER UNIT
900000	1 EACH	STEEL POLE WITH SINGLE 50 FT. MAST ARM (15'-0" T)

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINETS. ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
114275	1600 L.F.	REMOVAL OF REMOVABLE PREFORMED PAVEMENT LINE MARKINGS - ANY WIDTH
114300	1500 L.F.	8 IN. REMOVABLE PATTERNED BLACK LINE MASK TAPE FOR MAINTENANCE OF TRAFFIC
120500	LUMP SUM	MAINTENANCE OF TRAFFIC
203030	3 C.Y.	TEST PIT EXCAVATION
114245	30 L.F.	24 INCH WHITE REMOVABLE PREFORMED PAVEMENT LINE
800000	1200 L.F.	ELECTRICAL CABLE 5-CONDUCTOR (NO. 12 A.W.G.)
800000	LUMP SUM	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
800000	320 L.F.	2 IN. FLEXIBLE STEEL CONDUIT ATTACHED TO BRIDGE
801004	11 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
800000	1 EA.	40 FT. CLASS II WOOD POLE
801106	45 L.F.	WOOD SIGN SUPPORTS (4 INCH x 6 INCH)
801711	12 S.F.	REMOVE EXISTING GROUND MOUNTED SIGNS AND SUPPORTS
802501	2300 L.F.	NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
805010	30 L.F.	1 INCH ELECTRICAL CONDUIT - GALVANIZED RISER
805032	30 L.F.	3 IN. U-GUARD - PVC RISER
805040	1 EACH	WEATHERHEAD, 3 IN.
805115	700 L.F.	3 IN. SCHEDULE 80 RIGID PVC CONDUIT - BORED
805135	780 L.F.	3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805160	30 L.F.	1 INCH LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
807400	2 EACH	ELECTRICAL UTILITY SERVICE EQUIPMENT (120/240 V. 60 AMPS)
810010	90 L.F.	ELECTRICAL CABLE - 1 CONDUCTOR (NO. 4 A.W.G.- THHN/THWN)
810555	1 EACH	FURNISH AND INSTALL MICRO PROBE SET 1000 FT. LEAD-IN
811001	13 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813014	35 S.F.	INSTALL GROUND MOUNTED SIGN
813015	39 S.F.	INSTALL OVERHEAD SIGN
818030	1 EACH	STEEL POLE WITH SINGLE 38 FOOT MAST ARM
818041	1 EACH	STEEL POLE WITH SINGLE 60 FOOT MAST ARM
831010	1 EACH	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
833006	180 L.F.	2 INCH DIAMETER RIGID STEEL CONDUIT, SCHEDULE 40
837001	3 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 INCH DIAMETER x 10 FOOT LENGTH
860272	14 EACH	12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860292	3 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
861104	3500 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR, (ALUMINUM SHIELDED)
861107	150 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
861116	1200 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.)
862101	1200 L.F.	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
862102	400 L.F.	SAWCUT FOR SIGNAL LOOP DETECTOR
861106	2200 L.F.	ELECTRICAL CABLE - 3 CONDUCTOR (14 A.W.G.)
866103	1 EACH	15 FT. LIGHTING ARM ON SIGNAL STRUCTURE
866204	1 EACH	INSTALL STEEL POLE AND SINGLE MAST ARM, ANY SIZE
869102	600 L.F.	STEEL SPAN WIRE - 3/8 INCH DIAMETER
871201	2 EACH	INSTALL CONTROLLER AND CABINET - POLE MOUNT

PHASE CHART

3	4	5	6
(R)	(R)	(R)	(R)
(Y)	(Y)	(Y)	(Y)
(G)	(G)	(G)	(G)

PHASE 1 CLEARANCE	R	R	R	R	
PHASE 2	G	G	R	R	
2 CHANGE	Y	Y	R	R	
PHASE 3 CLEARANCE	R	R	R	R	
PHASE 4	R	R	G	G	
4 CHANGE	R	R	Y	Y	
FLASHING OPERATION	FL/R	FL/R	FL/R	FL/R	

WIRING KEY

A B C } 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

F G E } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

D } 5-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)

H } 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)

J K N } 2-CONDUCTOR ELECTRICAL CABLE ALUMINUM SHIELDED (NO. 14 A.W.G.)

L } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

O R P S T } 1 - CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)

M } MICROLOOP PROBE LEAD-IN

ML - MICROLOOP PROBE SET

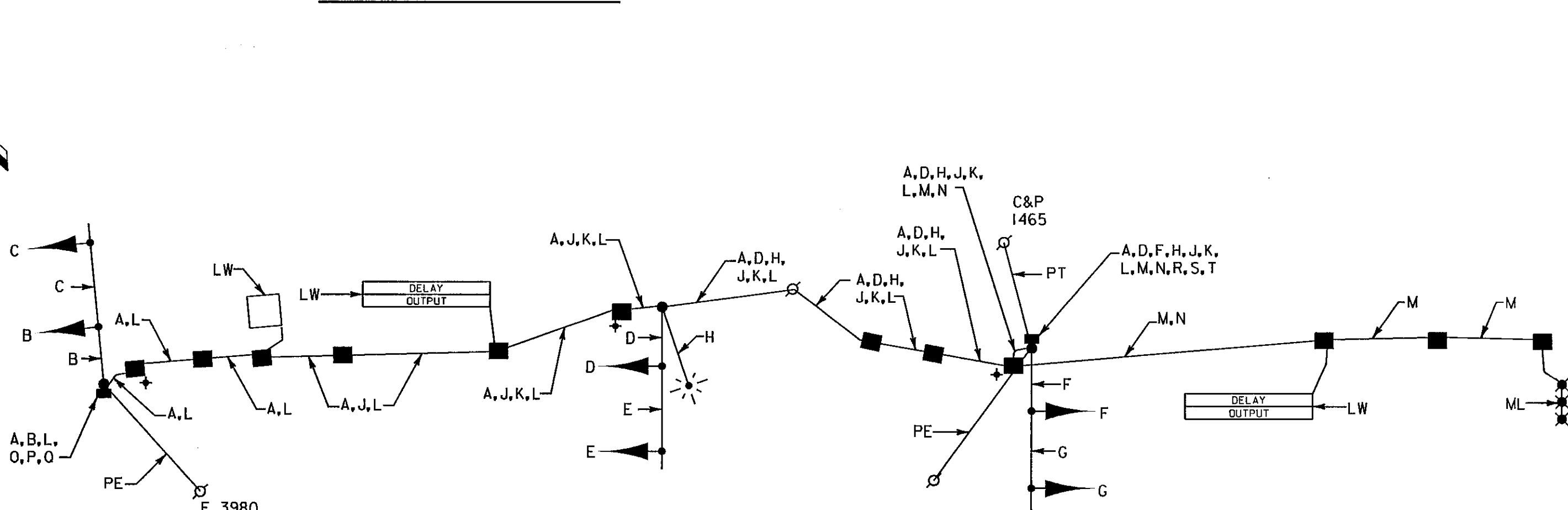
LW - LOOP WIRE (NO. 14 A.W.G.)

PE - PROPOSED OVERHEAD ELECTRICAL SERVICE

PT - PROPOSED OVERHEAD TELEPHONE SERVICE

+ - 3/4 IN. X 10 FT. GROUND ROD

WIRING DIAGRAM



TSP-3



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION SHEET

MD 355 BRIDGE NO.10085 OVER THE MONOCACY RIVER



Whitman, Reardon  
and Associates, LLP

801 South Caroline Street  
Baltimore, Maryland 21231  
(410) 235-3450

DRAWN BY: B. DONOWAY

CHECKED BY: N. LEARY

SCALE: NONE

DATE: 9/18/2003

F.A.P. NO.

S.H.A. NO.

COUNTY:

LOG MILE:

FR4345180

FREDERICK

10035507.55

TS NO.

T.I.M.S. NO.

F876

SHEET NO.

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